

# Series 194/195 DIP Technical Data

# Side actuated, through hole DIP switches

#### **Features**

#### **Optimized Mechanical Features**

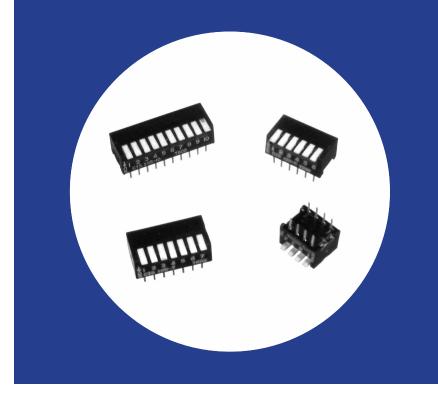
- SPST switching functions
- Enclosed actuators shield contacts from foreign particles throughout life of switch
- Reliable tape top seal optional/bottom epoxy seal standard
- Standard 2.54mm (.100") x 7.62mm (.300") DIP centers
- Complete marking on front side includes all information: ON direction, pole number, logo, part number and date code

#### **Optimized Contact System**

- Contact wiping on make and break
- Lock-over-center design provides positive detent action
- Optimized, active contact design incorporating a dimpleto-flat surface wiping interface with high contact force
- Insert molded base halves, of high temperature plastic, ensure mechanical integrity of contacts and terminals through soldering operations

#### **Materials**

- · All U.L. 94 V-O plastics used
- Series 194 gold plated contacts
- Series 195 tin-lead plated contacts



U.S. Patent # 4,389,549

Series 194 – Premium Gold Plated Contacts
Series 195 – Economical Tin-Lead Plated Contacts

### **Electrical and Mechanical Specifications**

#### **Switch Function**

Single pole single throw

#### **Switch Contact Resistance**

Switch Series	Initial, max.	End of life, max.
194	50 milliohms	100 millohms
195	100 milliohms	500 millohms

#### Insulation Resistance

closed switches

1,000 megohms minimum across open switch 1,000 megohms minimum between adjacent

#### **Dielectric Strength**

500 VAC minimum for 1 minute between adjacent switches

#### **Nonswitching Rating**

100 mA or 50 VDC

#### **Switch Capacitance**

5.0 pF maximum between adjacent switches

#### **Operating Temperature**

-40°C to +85°C

#### **Actuation Life**

Series 194 – 7,000 cycles switching 50 mA @ 24 VDC Series 195 – 2,000 cycles switching 50 mA @ 24 VDC

#### Allowable Solder Time

Up to 4 seconds with 260°C solder

#### **Vibration**

No mechanical damage or changes of switch settings during or after testing, when tested in three mutually perpendicular planes at 10-50 Hz sweep or at 60 Hz constant vibration

#### **Shock**

No mechanical damage or changes of switch settings with 25 G applied

#### Sealing

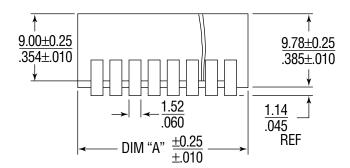
Bottom epoxy seal standard Top tape seal optional

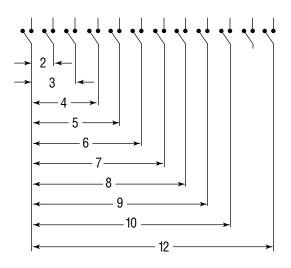
#### Marking

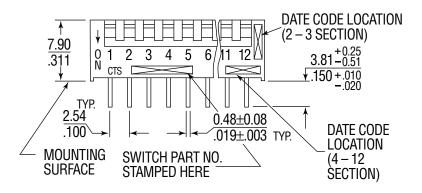
Special side or top marking available-consult CTS

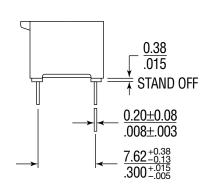
Technical Data Sheet 4194/195

#### **CTS SERIES 194/195**







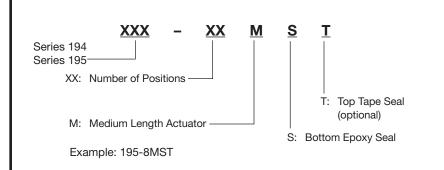


DIMENSION:  $\frac{MM}{INCH}$ 

## **Ordering Information**

"A" Overall Dimension	No. of Switch Sections
7.26 / .286	2
9.80 / .386	3
12.34 / .486	4
14.88 / .586	5
17.42 / .686	6
19.96 / .786	7
22.50 / .886	8
25.04 / .986	9
27.58 / 1.086	10
32.66 / 1.286	12

# **Part Number Code For Ordering**



#### **Order From:**

CTS CORPORATION, ELECTROCOMPONENTS / 1601 Mishawaka Street / Elkhart, Indiana 46514 North America Toll Free (888) 287-4690 / (219) 296-6700 / FAX: (219) 293-1240 http://www.ctscorp.com

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